

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

HAPTIC, INC.,

Plaintiff,

v.

APPLE, INC.,

Defendant.

Civil Action No. 1:23-cv-1351

JURY TRIAL REQUESTED

COMPLAINT FOR PATENT INFRINGEMENT AND JURY DEMAND

Plaintiff Haptic, Inc., (“Haptic” or “Plaintiff”) hereby files its Complaint for Patent Infringement and Jury Demand against Defendant Apple, Inc., (“Apple” or “Defendant”). Haptic alleges infringement of United States Patent No. 9,996,738 (the “’738 Patent” or “Asserted Patent”) and states as follows:

THE PARTIES

1. Plaintiff Haptic, Inc., formerly known as Swan Solutions, Inc., is a Delaware company with its principal place of business at 6016 Chictora Cove, Austin, TX 78759.
2. Haptic is the sole and exclusive owner of all rights, title, and interest to and in the ’738 Patent and holds the exclusive right to take all actions necessary to enforce its rights to the ’738 Patent, including the right to recover all damages for past, present, and future infringement of the ’738 Patent and to seek injunctive relief as appropriate under the law.
3. Defendant Apple, Inc. is a California corporation and has a physical place of business at 5501 West Parmer Lane, Austin, Texas 78727. Apple can be served through its registered agent, CT Corporation System, located at 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

4. Apple is registered to do business in Texas and has regular and established places of business in the Western District of Texas.

JURISDICTION AND VENUE

5. This Court has exclusive subject matter jurisdiction over this case pursuant to 28 U.S.C. §§ 1331 and 1338(a) on the grounds that this action arises under the Patent Laws of the United States, 35 U.S.C. § 1 et seq., including, without limitation, 35 U.S.C. §§ 271, 281, 284, and 285.

6. This Court has specific personal jurisdiction over Apple because Apple conducts business in the State of Texas and in this District. Plaintiff's causes of action arise from Apple's contacts with and activities in the State of Texas and in this District. Upon information and belief, Apple has committed acts of infringement within the State of Texas and within this District by directly and/or indirectly making, using, selling, offering to sell, or importing products that infringe one or more claims of the '738 Patent.

7. Venue is proper in this District under 28 U.S.C. §§ 1391(b), (c), and 1400(d) because (1) Apple has done and continues to do business in this District, (2) Apple has a regular and established place of business in this District, and (3) Apple has committed and continues to commit acts of patent infringement in this District by making, using, selling, offering to sell, or importing products that infringe one or more claims of the '738 Patent.

8. Apple is registered to do business in Texas and maintains regular and established places of business in this District, including at least at 3121 Palm Way, Austin, Texas; 2901 S. Capital of Texas Hwy., Austin, Texas; 12535 Riata Vista Circle, Austin, Texas; and 5501 West Parmer Lane, Austin, Texas. Apple carries out its business from these physical locations. Upon information and belief, work done at these Apple locations in Texas includes work related to Apple's iPhone.

9. Apple has placed or contributed to placing infringing products into the stream of commerce via established distribution channels knowing or understanding that such products would

be sold and used in the United States, including in the Western District of Texas. On information and belief, Apple has derived substantial revenues from infringing acts in the Western District of Texas, including from the sale and use of infringing products.

10. On information and belief, Apple manufactures some of its products in this District and has done so since at least 2013.

11. On information and belief, several Apple employees who met with Haptic in 2016 and who have knowledge of Apple's infringement of the '738 Patent, including at least Apple Systems Engineer Adam Norwood, reside in Austin.

12. Apple has committed acts of infringement in this District and does business in this District, including making sales and/or providing service and support for customers and/or end-users in this District. Apple purposefully and voluntarily sold one or more infringing products with the expectation they would be purchased in this District. These infringing products have been and continue to be purchased in this District. Thus, Apple has committed acts of infringement within the United States, the State of Texas, and this District.

13. Additionally, Haptic is headquartered and physically based in Austin. Haptic also inventories and ships its products from Austin.

PATENT-IN-SUIT

14. On June 12, 2018, the United States Patent and Trademark Office issued the '738 Patent titled "System and method for controlling a terminal device." A true and correct copy of the '738 Patent is attached hereto as Exhibit 1. The '738 Patent claims priority to U.S. Provisional Patent Application No. 62/115,769, filed on February 13, 2015. The '738 Patent is valid and enforceable.

15. The '738 Patent generally covers a tap-based control system that converts a surface into a controller for a terminal device. The control system includes a housing, a sensor, a mounting surface, a sensor, and a terminal device.

16. Claim 1 of the '738 Patent reads:

A control system comprising:

a housing having an engagement means for a mounting surface;

a sensor contained within said housing, said sensor forming an interactive zone defined by a range of said sensor, said sensor being comprised of an accelerometer, said interactive zone being aligned with said mounting surface and overlaying said mounting surface outside a perimeter of said housing, said sensor being in a fixed position relative to said engagement means, wherein a contact interaction associated with said mounting surface within said interactive zone is detected by said sensor as data signals, said contact interaction being comprised of an impact on said mounting surface, said data signals being comprised of vibration data of said contact interaction;

a server in communication with said sensor, said server being comprised of a routing module, a processing module being connected to said routing module, and an output module connected to said processing module, said routing module receiving said data signals from said sensor, said processing module determining a data pattern corresponding to said data signals of said contact interaction and matching said data pattern with a gesture profile, said gesture profile being associated with a command; and

a terminal device being comprised of a receiving module and means for initiating activity of said terminal device corresponding to said command, said terminal device being in communication with said server, said output module transmitting said command to said receiving module,

wherein said engagement means of said housing comprises:

an attachment means between said housing to said mounting surface; and

a transmission portion connecting said sensor to said attachment means of said housing and being comprised of a material with flexibility different than said mounting surface so as to set a rigid position of said sensor relative to said mounting surface, said contact interaction generating said data signals of said sensor through said transmission portion.

17. Claim 2 of the '738 Patent reads:

The control system, according to claim 1, wherein said interactive zone of said sensor aligns with said mounting surface, said interactive zone being coplanar with said mounting surface.

18. Claim 4 of the '738 Patent reads:

The control system, according to claim 1, wherein said contact interaction is comprised of an impact on said mounting surface, said data signals having a respective defined peak corresponding to each impact, a defined time period after a last defined peak, said data pattern being comprised of each defined peak and said defined time period after said last defined peak.

19. Claim 5 of the '738 Patent reads:

The control system, according to claim 1, wherein said contact interaction is comprised of a plurality of impacts on said mounting surface, said data signals having a respective defined peak corresponding to each impact, a measured time period between each defined peak, and a defined time period after a last defined peak, said data pattern being comprised of each defined peak, each measured time period, and said defined time period after said last defined peak.

20. Claim 9 of the '738 Patent reads:

The control system, according to claim 1, further comprising:

an additional terminal device being comprised of an additional receiving module and additional means for initiating activity of said additional terminal device corresponding to an additional command, said additional terminal device being in communication with said server, said output module transmitting said additional command to said additional receiving module.

21. The '738 Patent's named inventors are Yaniv Boshernitzan and Ohad Nezer.

22. On February 12, 2016, the inventors conveyed to Swan Solutions, Inc. all rights, title, and interest in and to the invention of the '738 Patent in a written assignment recorded in the United States Patent and Trademark Office. On June 10, 2019, Swan Solutions, Inc. changed its name to Haptic, Inc.

23. Haptic, Inc. is the exclusive owner of all rights, title, and interest in the '738 Patent.

24. Apple is not licensed under the '738 Patent, either expressly or implicitly, nor does Apple enjoy or benefit from any rights in or to the '738 Patent whatsoever.

FACTUAL ALLEGATIONS

1. Haptic's Innovative Technologies

25. Haptic is an operating business that offers Knocki, a small wireless device that activates surfaces into touch control interfaces for terminal devices. Haptic has over ten-thousand active users.

26. Yaniv Boshernitzan is the founder and CEO of Haptic. He is an experienced product designer and inventor with 20 years of experience as an entrepreneur and product development executive.

27. Haptic has several employees and has invested millions of dollars in product development and other research and development efforts. Haptic's flagship product, Knocki, helped Haptic become the most-backed Texas technology company in Kickstarter history, raising \$1.3 million in just 30 days to help the company bring its product to market and begin testing its Haptic platform.

28. The specific mode of interaction of Knocki are "tap gestures," which are predefined tap patterns that can be applied to an activated surface. Each tap pattern can be mapped to trigger specific functions. Knocki can be programmed with up to 10 unique tap gestures, such as a double-taps, triple-taps, or two double-taps.

29. Knocki can be configured to control a variety of devices and programs. Knocki can use Wi-Fi to connect to an automation server in the cloud, so that when a command is transmitted by knocking a surface, the server identifies the corresponding action and sends it to the appropriate device, software, or service. Internet-connected devices, devices with open-platform software, or third-party Application Programming Interfaces can be controlled through Knocki. Knocki can also connect to devices that are not internet-connected via a local area network. Knocki can also connect to a variety of free online automation "recipe" tools to create unlimited new functions. In addition to

controlling other devices, Knocki can use gestures to control itself. Gestures can put the Knocki device into different modes or even reset the device.

30. Knocki works anywhere it can access a Wi-Fi connection. Knocki works throughout most homes and offices and even in garages or out-houses within the range of Wi-Fi. Knocki instantly turns ordinary surfaces into powerful touch control interfaces for various actions. For example, Knocki may be attached to a table and set to different knock patterns to turn off lights, unlock doors, send messages, adjust the temperature, and many other actions.

31. Knocki works on any solid surface, including those made of glass, plastic, wood, and other materials. It may be placed on a wall, table, door, or even under or within a surface to add interactivity and automate an endless array of actions.

32. Haptic introduced Knocki to the public via a Kickstarter campaign in 2016. Since then, Haptic has sold and shipped Knocki devices to customers in over 90 countries. Haptic continues to manufacture the device and to sell it to customers worldwide directly through its website, knocki.com, and through distributors. Knocki has garnered accolades from many distinguished sources, including Popular Science, Business Insider, and Wired. Today, Haptic holds at least 7 United States utility and design patents on Knocki and related technology.

2. Haptic's Interactions with Apple

33. Amid the publicity from Knocki's record-breaking Kickstarter campaign, Apple reached out to and requested a meeting with Haptic to explore partnership opportunities and learn more about Knocki. On May 23, 2016, in an email to Haptic's CEO, an Apple representative wrote:

We'd love to discuss your product and how it confluences with many of Apple's smarthome aspirations. Without making any definitive promises too early, there may be some partnerships and resources to examine when your product goes to market. We'd like to schedule some time to speak with you on both your short and long-term objectives, general business structure and hopefully through this process get more insight on how Apple can be a partner to you both immediately and in the future. When can we chat?

34. On December 6, 2016, Haptic had an in-person meeting with at least six Apple representatives. That meeting was requested by Apple and hosted by Apple at an Apple office in Houston, Texas:



35. During that meeting, Apple representatives asked many questions about Haptic and its technology. Apple explained to Haptic that it would use the technical information Haptic provided to explore opportunities for collaboration, including accessibility applications within Apple products and inclusion of Haptic's Knocki product in Apple stores. At that meeting, Haptic told the Apple representatives that the key technology in the Knocki product was patent pending. Apple requested a sample of the Knocki product, and Haptic informed Apple that a pre-release Knocki could be provided under a nondisclosure agreement.

36. Shortly after the December 6, 2016 meeting in Houston, an Apple representative introduced Haptic by email to several Apple teams for the purpose of continuing discussions about accessibility applications, putting Haptic's product in Apple's stores, and other partnership

opportunities. In 2017, Haptic and Apple entered a nondisclosure agreement. Over the next few months, Haptic and Apple representatives continued discussing Knocki, which Haptic had provided to Apple in pre-release form.

37. During an August 2017 call, Apple representatives asked Haptic many questions about the technology architecture of the pre-release Knocki. In particular, Apple asked questions about Haptic's patented hardware architecture and the user interface of Haptic's mobile application. Apple also disclosed to Haptic that Apple was interested in how Haptic's tap technology might integrate more natively with Apple's accessibility initiatives.

38. Based on Apple's disclosure of this interest, Haptic suggested the idea of Haptic and Apple working together to seamlessly integrate the Knocki interface with Apple's own ecosystem as an accessible Siri alternative to control Apple's own HomeKit-compatible Apple devices, such as Apple TVs, MacBook Laptops, Home Pods, and Apple Watches. Haptic also suggested exploring incorporation of its patent-pending technology directly into Apple devices and discussed with Apple the mobile application that Haptic had designed for Knocki, demonstrating how tap gestures could be mapped to functions, and how various third-party devices could be selected and grouped together into a multi-function task-list that a tap pattern, such as a triple-tap, could control.

39. Haptic told Apple that Haptic's Knocki device contained a specific processor model (Texas Instruments CC3200) that Texas Instruments had previously road-mapped to integrate with Apple devices via Apple's HomeKit. Haptic cited its own use of that processor model to show Apple that Haptic had already taken steps to seamlessly integrate Haptic's technology with Apple's technology. Shortly after that meeting, Apple stopped communicating with Knocki. Also, shortly after that meeting, the CC3200 Apple HomeKit roadmap was terminated.

40. Apple was fully aware of Haptic's pending patent application at least as of 2016. Haptic's patent application was granted in June 2018. Based on Haptic's meetings with Apple in

2016 and 2017, Apple knew about Haptic’s patent and Knocki technology, and was interested in accessibility applications similar to Haptic’s technology. After Apple ended all communications with Haptic, Apple integrated Haptic’s technology into Apple’s own products when Apple launched the Back Tap feature in September 2020.

3. Apple Launches its Back Tap Feature

41. On September 14, 2020, Apple launched Back Tap as a new iPhone feature with the release of iOS 14. Apple prominently featured Back Tap when it was introduced. In Apple’s official announcement for iOS 14, Back Tap appeared in the number one spot at the top of the list of Apple’s new accessibility features, outranking seven other new accessibility features. Apple continues to promote the Back Tap feature and has included it in every new iOS version since iOS 14.

42. Apple did not only include Back Tap in its new models of iPhones. Apple also rolled-out Back Tap to over one billion previous-model iPhones via iOS updates.

43. In addition to Apple’s own promotion of Back Tap, news articles, magazines, and tech blogs have praised the Back Tap feature (Popular Science, Forbes, Business Insider, USA Today, Mashable, MacWorld, NY Post, etc.). For example, Mashable stated that “iOS brings many new features but back tap may be the most useful new feature,” and MacWorld touts Back Tap as “the best iPhone feature you’re not using.”

THE ACCUSED PRODUCTS

44. The Accused Products consist of Apple’s Back Tap feature and every model of iPhone that Apple has introduced since the iPhone 8 series, including at least the iPhone 8, 8 Plus, X, XS, XS Max, XR, 11, 11 Pro, 11 Pro Max, SE, SE2, SE3, 12, 12 Mini, 12 Pro, 12 Pro Max, 13, 13 Mini, 13 Pro, 13 Pro Max, 14, 14 Plus, 14 Pro, 14 Pro Max, 15, 15 Plus, 15 Pro, and 15 Pro Max models.

45. Every model of iPhone that Apple has introduced since the iPhone 8 series utilizes Back Tap, a feature that allows a user to tap the back of the handset to perform functions on the iPhone and control other external devices.

46. On the iPhone, users can use Back Tap to set “double taps” and “triple taps” to perform a variety of pre-configured functions. Users can also select more customized functionality through Apple’s “Shortcuts” application—such as combining multiple steps across multiple apps to create powerful task automations—and assign a shortcut to a Back Tap gesture profile.

47. Back Tap activates the backside of the iPhone as a remote control tap interface, allowing double-taps and triple-taps applied to the back of the phone to trigger a wide variety of functions within the iPhone and to control external devices.



48. iPhone users can use Back Tap to control their phones and other devices with different types of taps on the back of their phones. In addition to controlling the iPhone handset itself, Back Tap also allows a user to create automations to control smart home features and other third-

party external devices. Back Tap also can control external Apple devices, including MacBook computers, Apple TVs, Apple AirPods, Home Pods, and Apple Watches.

49. The functionality disclosed within the claims of the '738 Patent represent the core value proposition of Haptic's flagship product—Knocki. Knocki provides an easier way to control devices by tap gestures anywhere on an ordinary surface. This is precisely the value proposition that Apple is able to deliver through the infringing Back Tap feature.

50. Apple has capitalized on Haptic's patented technology and delivered it to millions of Apple customers without Haptic's permission.

COUNT 1—DIRECT INFRINGEMENT OF THE '738 PATENT

51. Haptic repeats and realleges all preceding paragraphs, as if fully set forth herein.

52. As outlined in the non-limiting and exemplary claim charts attached as Exhibit 2, Apple iPhones that use the Back Tap feature infringe every element of at least Claims 1, 2, 4, 5, and 9 of the '738 Patent. The attached claim charts are incorporated by reference in their entirety. Haptic reserves the right to modify these charts, including, for example, based on information about the Accused Products obtained in discovery.

53. Furthermore, the Back Tap feature enables control of the iPhone handset as well as devices external to the iPhone. Back Tap is also integrated with Apple's "Shortcuts" application, which allows users to control Apple-produced and third-party external devices.

54. Apple's Back Tap directly competes with Knocki and Haptic, which owns the '738 Patent that Apple infringes.

55. Haptic has not licensed or otherwise authorized Apple to make, use, offer for sale, sell, or import any products that embody the inventions of the '738 Patent.

56. Apple infringes at least claims 1, 2, 4, 5, and 9 of the '738 Patent in violation of 35 U.S.C. § 271 with respect to the Accused Products. Haptic contends each limitation is met literally, and, to the extent a limitation is not met literally, it is met under the doctrine of equivalents.

57. Apple directly infringes at least claims 1, 2, 4, 5, and 9 of the '738 Patent by making, using (*e.g.*, performing/executing), selling, and/or offering to sell within the United States all iPhone models since the iPhone 8.

58. As described in additional detail in the claim charts attached and incorporated herein by reference, the Accused Products detect a contact interaction, determine a data pattern of the contact interaction (*e.g.*, a double-tap or a triple-tap), and match it to a gesture profile. The gesture profile is configured by the user through Apple's graphical user interface, where a user can assign a particular function to the double-tap or triple-tap. Apple's devices utilize Apple software that allows users to see which devices it can control and configures which devices to control.

COUNT 2—CONTRIBUTORY INFRINGEMENT OF THE '738 PATENT

59. Haptic repeats and realleges all preceding paragraphs, as if fully set forth herein.

60. Apple also contributes to infringement by others of one or more claims of the '738 Patent under 35 U.S.C. § 271(c), such as sellers, resellers, and end-user customers who directly infringe the '738 Patent when they use Back Tap to control third-party external devices or to control Apple's own HomeKit-compatible Apple devices, such as Apple TVs, and MacBook Laptops, AirPods, Home Pods, or Apple Watches.

61. Apple is also liable as a contributory infringer of the '738 Patent because it offers to sell and/or sold within the United States the material components of the Accused Products that practice the '738 Patent. Additionally, Apple controls and monetizes the technical architecture for Apple's "HomeKit," which enables Back Tap to control other devices and allows Apple to set the rules for how third-party devices can work with Back Tap.

COUNT 3—WILLFUL INFRINGEMENT OF THE '738 PATENT

62. Haptic repeats and realleges all preceding paragraphs, as if fully set forth herein.

63. Apple has had actual notice of Haptic's patent application at least as early as December 2016. Apple received constructive notice of the '738 Patent at least as early as June 2018 (when the U.S. Patent and Trademark Office issued the '738 Patent) and actual notice of the '738 Patent at least as early as the filing of this Complaint. Apple performed and continues to perform the acts that constitute direct and/or indirect infringement, with knowledge or willful blindness that the acts would constitute direct and/or indirect infringement of the '738 Patent.

64. Haptic has been injured and seeks damages to adequately compensate it for Apple's infringement of the '738 Patent. Such damages should be no less than a reasonable royalty under 35 U.S.C. § 284.

65. Upon information and belief, Apple will continue to infringe the '738 Patent unless permanently enjoined by this Court. Pursuant to 35 U.S.C. § 283, Haptic is entitled to a permanent injunction against further infringement of the '738 Patent by Apple.

DEMAND FOR JURY TRIAL

66. Plaintiff demands a jury trial of all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for relief against Defendant as follows:

- a. Entry of judgment declaring that Defendant infringes one or more claims of the '738 Patent;
- b. Entry of judgment declaring that Defendant's infringement of the '738 Patent is willful;
- c. An order awarding damages sufficient to compensate Plaintiff for Defendant's infringement of the '738 Patent, but in no event less than a reasonable royalty, including supplemental damages post-verdict, together with pre-judgment and post-judgment interest and costs;

- d. An injunction permanently enjoining Defendant, its employees, agents, officers, directors, attorneys, successors, affiliates, subsidiaries, and assigns, and all of those in active concert and participation with any of the foregoing persons or entities from infringing, contributing to the infringement of, or inducing infringement of the '738 Patent;
- e. Enhanced damages pursuant to 35 U.S.C. § 284, and supplemental damages for any continuing post-verdict infringement through entry of the final judgment with an accounting as needed;
- f. Entry of judgment declaring that this case is exceptional and awarding Plaintiff its costs and reasonable attorney fees pursuant to 35 U.S.C. § 285;
- g. An accounting for acts of infringement;
- h. A judgment and order requiring Defendant to pay Plaintiff pre-judgment and post-judgment interest on the damages awarded;
- i. A judgment and order awarding a compulsory ongoing royalty;
- j. A judgment and order awarding Plaintiff costs associated with bringing this action;
- k. Such other equitable relief which may be requested and to which the Plaintiff is entitled; and
- l. Such other and further relief as the Court deems just and proper.

Date: November 6, 2023

Respectfully submitted,

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